Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (CURRENTLY AMENDED) An endolumenal stent system, comprising:

an endolumenal stent;

a porous surface on the endolumenal stent comprising a first material and having a plurality of pores; and

a second composite material that is different than the first material and that is located within each of the pores and comprising a bioerodable material in combination with a bioactive agent.

2. (CURRENTLY AMENDED) The system of claim 1, wherein the second composite material comprises a plurality of particles.

3. (ORIGINAL) The system of claim 2, wherein the particles comprise an outer diameter that is less than about 5 microns.

4. (ORIGINAL) The system of claim 2, wherein the particles comprise an outer diameter that is less than about 2 microns.

5. (ORIGINAL) The system of claim 2, wherein the particles comprise an outer diameter that is less than about 1 micron.

6. (ORIGINAL) The system of claim 2, wherein the particles comprise a bioerodable polymer in combination with the bioactive agent.

7. (ORIGINAL) The system of claim 2, wherein:

the particles comprise an outer diameter;

the pores comprise an inner diameter; and

the inner diameter is substantially equivalent to the outer diameter.

8. (ORIGINAL) The system of claim 1, wherein the pores comprise an inner diameter that is less than about 5 microns.

9. (ORIGINAL) The system of claim 1, wherein the pores comprise an inner diameter that is less than about 2 microns.

10. (ORIGINAL) The system of claim 1, wherein the pores comprise an inner diameter that is less than about 1 micron.

11. (CURRENTLY AMENDED) The system of claim 1, wherein the first material ~~porous outer surface comprises a material that~~ is inherently porous.

12. (CURRENTLY AMENDED) The system of claim 1, wherein:

the first material ~~porous outer surface comprises a material that~~ is not inherently porous; and

the pores are formed at discrete locations within the first material along the surface.

13. (CURRENTLY AMENDED) The system of claim 12, wherein the pores are laser cut into the first material.

14. (CURRENTLY AMENDED) The system of claim 12, wherein the plurality of pores are photochemically etched into the first material.

15. (CURRENTLY AMENDED) The system of claim 12, wherein the plurality of pores are chemically etched into the first material.

16. (CURRENTLY AMENDED) The system of claim 1, wherein the ~~porous outer surface~~ first material comprises a sintered material.

17. (CURRENTLY AMENDED) The system of claim 1, wherein:

the endolumenal stent comprises a scaffold constructed from a ~~first~~ third material;

the ~~porous outer surface~~ first material comprises a coating ~~material~~ located on the ~~first~~ third material; and

the pores are located within the first coating material.

18. (CURRENTLY AMENDED) The system of claim 17, wherein the first coating material comprises a non-polymeric material.

19. (ORIGINAL) The system of claim 18, wherein:

the non-polymeric material comprises an electrochemically deposited material.

20. (ORIGINAL) The system of claim 19, wherein the electrochemically deposited material comprises an electrolessly electrochemically deposited material.

21. (CURRENTLY AMENDED) The system of claim 20, wherein the electrolessly electrochemically deposited material comprises a composite ~~material~~ with a metal and a reducing agent of the metal.

22. (ORIGINAL) The system of claim 21, wherein the metal comprises nickel.

23. (ORIGINAL) The system of claim 22, wherein the reducing agent comprises phosphorous.

24. (CURRENTLY AMENDED) The system of claim 22, wherein the ~~first~~ third material comprises a stainless steel alloy.

25. (CURRENTLY AMENDED) The system of claim 22, wherein the ~~first~~ third material comprises a nickel-titanium alloy.

26. (ORIGINAL) The system of claim 21, wherein the metal comprises cobalt.

27. (ORIGINAL) The system of claim 26, wherein the reducing agent comprises phosphorous.

28. (CURRENTLY AMENDED) The system of claim 26, wherein the ~~first~~ third material comprises a cobalt-chromium alloy.

29. (CURRENTLY AMENDED) The system of claim 17, further comprising a ~~second~~ fourth material between the first material and the third ~~coating~~ material.

30. (CURRENTLY AMENDED) The system of claim 29, wherein the ~~second~~ fourth material comprises an electroplated metal.

31. (ORIGINAL) The system of claim 30, wherein the electroplated metal comprises electroplated nickel.

32. (CURRENTLY AMENDED) The system of claim 29, further comprising a ~~third~~ fifth material between the ~~second~~ fourth material and the first coating material.

33. (CURRENTLY AMENDED) The system of claim 32, wherein:

the ~~second~~ fourth material comprises electroplated metal;

the ~~third~~ fifth material comprises a first layer of an electrolessly electrochemically deposited composite material with a metal and a reducing agent of the metal; ~~and~~

the first coating material comprises a second layer of an electrolessly electrochemically deposited composite material with a metal and a reducing agent of the metal; and ~~further comprises~~

the second composite material is located within the pores of the first coating material.

34. (ORIGINAL) The system of claim 1, wherein the bioactive agent comprises an anti-restenosis agent.

35. (ORIGINAL) The system of claim 1, wherein the bioactive agent comprises an anti-inflammatory agent.

36. (ORIGINAL) The system of claim 1, wherein the bioactive agent comprises an anti-proliferative agent.

37. (ORIGINAL) The system of claim 1, wherein the bioactive agent comprises an anti-proliferative agent in combination with an anti-inflammatory agent.

38. (ORIGINAL) The system of claim 1, wherein the bioactive agent comprises des-aspartate angiotensin 1.

39. (ORIGINAL) The system of claim 1, wherein the bioactive agent comprises at least one of sirolimus, tacrolimus, everolimus, paclitaxel, a steroid, exochelin, dexamethasone, nitric oxide, apocynin, gamma-tocopherol, an antibody, a growth factor, a combination or blend thereof, or an analog, precursor or derivative thereof.

40. (ORIGINAL) The system of claim 1, wherein the ratio of the bioactive material to the bioerodable material in the composite material is at least about .5:1.

41. (ORIGINAL) The system of claim 1, wherein the ratio of the bioactive material to the bioerodable material in the composite material is at least about 1:1.

42. (ORIGINAL) The system of claim 1, wherein the ratio of the bioactive material to the bioerodable material in the composite material is at least about 1.5:1.

43. (ORIGINAL) The system of claim 1, wherein the bioerodable material comprises a bioerodable polymer material.

44. (CURRENTLY AMENDED) An endolumenal stent system, comprising:

an endolumenal stent with a substrate with an outer surface;

a coating material coupled to the outer surface;

a plurality of composite particles located within the coating material ~~coupled to the endolumenal stent~~;

wherein the composite particles comprise a bioerodable material in combination with a bioactive agent; and

wherein the composite particles are adapted to release the bioactive agent and the bioerodable material is adapted to erode from the ~~endolumenal stent~~ coating material when the endolumenal stent is implanted within a body of a patient.

45. (CURRENTLY AMENDED) A system for depositing a bioactive coating onto a surface of an endolumenal stent, comprising:

a coating environment;

a plurality of metal ions within the coating environment;

a plurality of composite particles located within the coating environment and that each comprises a composite material that comprises a bioactive agent in combination with a bioerodable carrier material; and

wherein the coating environment is adapted to co-deposit the metal ions with the composite particles onto the endolumenal stent surface to form a composite surface coating when the endolumenal stent is exposed to the coating environment and such that the co-deposited composite surface coating is adapted to elute the bioactive agent therefrom and the bioerodable carrier material is adapted to erode therefrom when the surface is exposed to a body of a patient.

46. (CURRENTLY AMENDED) A system for depositing a bioactive coating onto a surface of an endolumenal stent, comprising:

a coating environment with a coating material;

a plurality of composite particles located within the coating environment and that comprise a composite material that comprises a bioerodable material in combination with a bioactive agent;

wherein the coating environment is adapted to co-deposit the coating material with the composite particles onto the surface so as to form a composite surface coating that is adapted to release the bioactive agent and erode the bioerodable material from the surface when the surfaced is exposed to a body of a patient.